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2011 Sep-30 PM 02:18 U.S. DISTRICT COURT N.D. OF ALABAMA

# **EXHIBIT D**

# IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ALABAMA SOUTHERN DIVISION

Alabama Gas Corporation,		)	
	Plaintiff,	)	
v.		)	CIVIL ACTION NO.:
		)	2:10-cv-1840-IPJ
Travelers Casualty and Surety		)	
Company, et al.,		)	
	Defendants.	)	
		)	

### **Supplement to Expert Report of Dennis Unites**

I hereby supplement my Expert Report in the above-styled matter to clarify that we accessed aerial photographs for years 1942 and 1978 from the on-line University of Alabama library. Those photographs may be viewed at http://alabamamaps.ua.edu/aerials/Counties/Madison/index.html. In addition, I relied upon analysis provided to me by Dr. Glen C. Gustafson of Environmental Image Group, who analyzed photographs for 1942, 1950, 1954, 1958, 1962, 1968 and 1971 using a zoom stereoscope. In general, stereoscopic examination of photographs provides much greater detail than can be seen with a single photograph, especially with the naked eye. Dr. Gustafson's September 11, 2011, report analyzing the photos for 1958, 1962, 1968 and 1971 is attached. Further, two days after the September 13, 2011 publication of my expert report, Dr. Gustafson has provided me with written analysis of photos he examined for 1942, 1950 and 1954, which is also attached. Dr. Gustafson's analysis of the photographs from 1950 and 1954 indicates that the dismantling or demolition of the holders and their associated below-grade structures appears to have been started prior to February 1950 but was not completed until sometime after February 1954. The 1950 photo showed shadows of the distribution holder superstructure. Further, Dr. Gustafson's examination shows that liquid contents

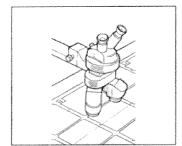
from one of the holder bottoms was being drained or otherwise diverted to the nearby creek in early 1954. Along with review of Dr. Gustafson's reports, I also had several conversations with him regarding his observations of the various photographs listed above.

Tennes bull

Dennis F. Unites

### Environmental Image Group

Glen C. Gustafson, PhD. 42 Banning Drive, PO Box 422 Avalon, CA 90704 Tel: (310) 612 - 3505 Blue-2002@GMX.NET



### LETTER OF TRANSMITTAL

TO:

**Dennis Unites** 

**GEI Consultants** 

DATE:

September 11, 2011

4:30 PM Pacific Time

SUBJECT: Aerial Image Analysis Reports for 1936 (map), 1958, 1962, 1968, & 1971

### Dennis:

The aerial imagery analysis report requested by Scott Laseter, of KGL Attorneys, follows. This covers the US Geological Survey, 1936 "Huntsville, AL" Topographic Quadrangle map(7.5 min.); May 30, 1958, US Department of Agriculture airphotos; March 1962 Aeroquest airphotos; March 27, 1968 Aeroquest airphotos; and February 6, 1971 Aeroquest airphotos. The aerial films from 1937, 1942, 1950, and 1954 are still to arrive. The 1942 film from the National Archives has been promised for either tomorrow (Monday), or the next day.

The "Uniform Image Analysis Report" which follows, has been compiled from stereo aerial films viewed over a light table through a standard Zoom Stereoscope. In its standard form, this equipment permits

The positions of objects on the sketchmaps are only visual approximations, viewing of aerial films with stereo vision and zoom capabilities up to 30X. regarding size and location.

In a few cases, the dimensions of ground objects are given. These are not estimations, but rather, approximate calculations based on standard "photogrammetry" could be used to more correctly dimension ground "photo mensuration" techniques. If needed, the science of objects, although this is more time-consuming.

Document 113-4

Until further aerial film arrives, I have completed the task to the best of my ability in the time provided. I hope you will find this useful. Please feel free to contact me as needed with questions or clarifications.

9/11/11

### Uniform Image Analysis Report

Site Name: HUNTSVILLE MGP, AL

Date of Photography: 1936 USES TOPO MAP

Photo Source: US Geol. Survey

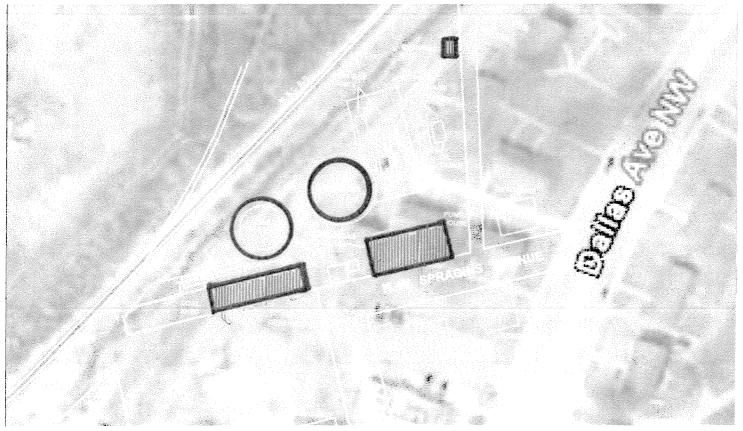
Nominal Scale: 1:24,000 Film Type:

Reference No.: "HUNTSVILLE" TOPO QUAD

Comments: HIGHLY GENERALIZED US GEOL.

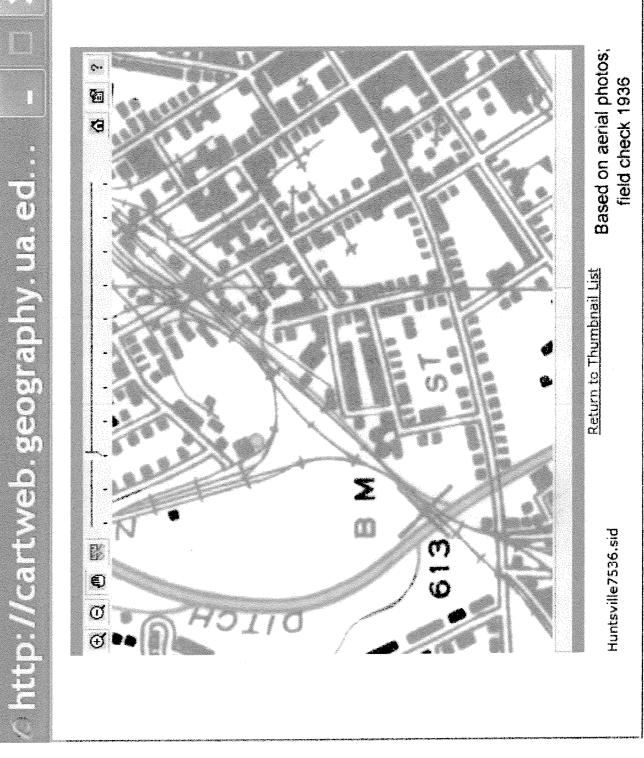
SURVEY MAP FROM 1936 SHOWS:

- 2 GAS HOLDERS
- RETORT BLDG.
- PURIFIER HOUSE
- RESIDENCE (?) IN NORTH CORNER.



NOTE: Objects marked in heavy BLACK over the ghost image, present for this year.

# Huntsville, AL 1936 USGS Topo Quadrangle



Site Name: HUNTSVILLE MGP, AL

Date of Photography: MAY 30, 1958

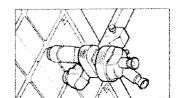
Photo Source: USDA

QUACITY: FAIR/POOR

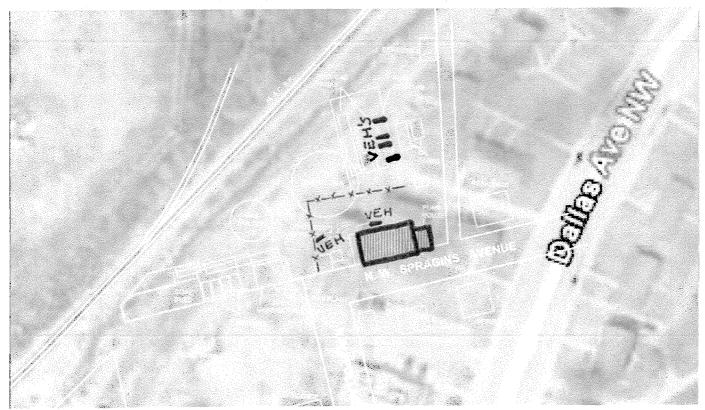
MAGE

Nominal Scale: \_\_\_\_\_ Film Type: PAN

Reference No.:



Comments: SITE CONTAINS! FORMER PURIFYING
HOUSE AND PUMP HOUSE (ATTACHED AT
E. END); 4 PROB. SMALL VEHICLES IN
GRASSY AREA NORTH OF PURIFYING BLOG,
I POSS. VEHICLE ALONGSIDE BLOG. NO
EVIDENCE OF FORMER GAS HOLDERS. (CONT.)



NOTE: Objects marked in heavy BLACK over the ghost image, present for this year.

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MAY 30, 1958 COMMENTS, confi

JNACTIVE SITE APPEARANCE.

NO RESIDENCE IN EXTREME N

Date of Photography: MARCH 1962

Photo Source: AEROQUEST

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Nominal Scale: \_\_\_\_\_ Film Type: PAN

Reference No.:

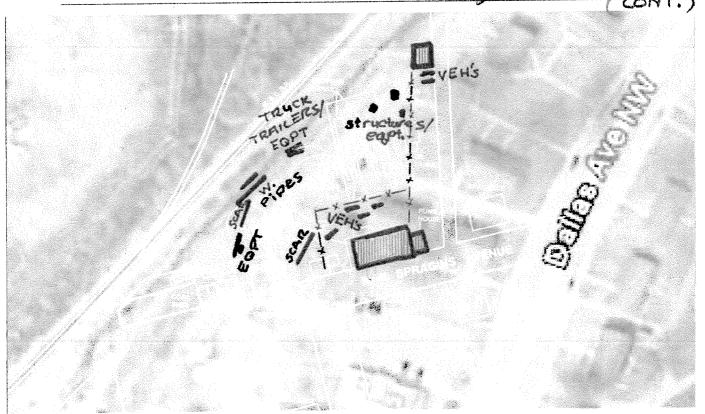
Comments: SITE CONTAINS ! PURIFYING HOUSE

ATTACHED PUMP HOUSE; ADJOINING PAUE-MENT SHOWS H PROB, SMALL VEHICLES,

RESIDENCE IN N CORNER HAS 2 SML, VEHS

ADJOINING; GRASSY YARD AREA CONTAINS

2 PROB. SEMI-TRUCK TRAILERS, 3 UNKNOWN (CONT.)



NOTE: Objects marked in heavy BLACK over the ghost image, present for this year.

### HUNTSUILLE MGP, AL MARCH 1962 COMMENTS cost,

SMALL VEHICLES/EQUIPMENT,

- I APRX, 50-FOOT LONG WHITE PIPE

OF LARGE DIAMETER, \$2 OTHER

SHORTER WHITE PIPES; NEARBY

ARE TWO LONG, NARROW AREAS

OF WHITE GROUND SCARRING.

SITE APPEARS ACTIVE,

- VEHICLE TRAFFIC PATTERNS INDICATE THAT THE FORMER "COAL
  YARD" TO THE SOUTHWEST IS
  NOW A FUNCTIONAL PART OF THE
  SITE, WITH NO BREAK BETWEEN
  THE TWO.
- NOTE: FORMER PUMP HOUSE IMMED-IATELY ADJOINS PURIFIER BUILDING ON THE EAST END; 1966 AND OTHER SANBORN MAPS SHOW A GAP BETWEEN THE TWO.

## Uniform Image Analysis Report

Site Name: HUNTSUILLE MGP, AL

Date of Photography: MARCH 27, 1968

Photo Source: AEROQUEST

Nominal Scale: Film Type: PAN

Reference No.:

Comments: REMAINING ORIGINAL BUILDINGS

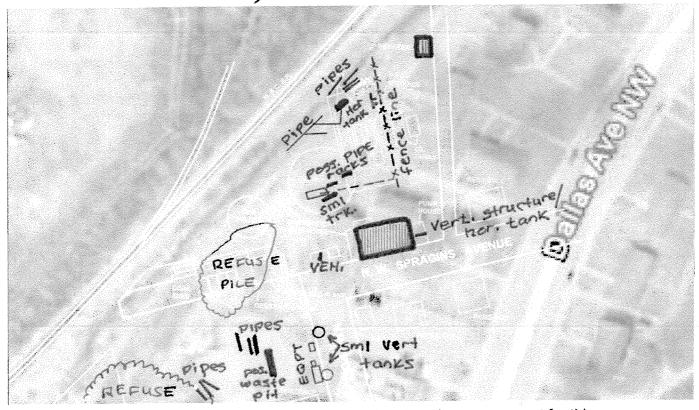
INCLUDE ONLY THE FORMER PURIFYING

HOUSE AND THE RESIDENCE IN THE

NORTH CORNER OF THE PROPERTY.

THE PUMP HOUSE HAS BEEN REPLACED

BY A TALL, NARROW VERTICAL (cont.)



NOTE: Objects marked in heavy BLACK over the ghost image, present for this year.

# MARCH 27, 1968 cont. P.2

STRUCTURE WHICH COULD BE A CYLINDRICAL HORIZONTAL STORAGE TANK ON A SOLID CRADLE; THE POSSIBLE TANK MEASURES 10-15 FEET IN LENGTH.

- ANOTHER PROBABLE CYLINDRICAL
  HORIZONTAL STORAGETANK IS LOCATED
  ALONG THE GULLY AT THE NW
  EDGE OF THE FACILITY, THIS TANK
  MEASURES ROUGHLY 15-20 FT, IN LENGTH.
  THIS HAS AN L-SHAPED PIPE LEAVING
  IT TO THE SOUTH, THEN SOUTHWEST.
- SCATTERED AT AT LEAST 3 LOCATIONS
  ARE AFRY, ZO-FT, LONG BLACE
  PIPE SECTIONS.
- MORE POSSIBLE PIPE SECTIONS
  MAY BE STORED IN TWO RACKS
  JUST N OF THE PURIFYING HOUSE
  YARD.
- A NARROW, BLACK, POSSIBLE WASTE PIT IS LOCATED IN THE FORMER COAL YARD, PARALLEL W/ POLLARD ST.

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# MARCH 27, 1968 cont. P. 3

- TWO LARGE PILES OF REFUSE/ FILL DIRT ARE VISIBLE AT THE SW PART OF THE FACILITY AND IN THE COAL YARD
- TWO SMALL, POSSIBLE VERTICAL
  STORAGE TANKS AND SOME OTHER
  EQUIPMENT IS VISIBLE AT THE
  EAST EDGE OF THE COAL YARD
  ALONG THE SIDE OF POLLARD ST.
  - ONE PROBABLE PICK-UP TRUCK AND A SKIALLER VEHICLE ARE VISIBLE AT THE SW END OF THE PURIFYING HOUSE Y ARD.
- OF CONSIDERABLE ACTIVITY.

## Uniform Image Analysis Report

Site Name: HUNTSVILLE MGP AL

Date of Photography: FEB. 6, 1971

Photo Source: A EROQUEST

EXCELLENT

TMAGE QUALITY!

Nominal Scale: 1/12,000 Film Type: PAN

Reference No.:

Comments: SITE HAS BEEN ENTIRELY

RAZED, GRADED AND BUILT UP INTO A

NEW NEIGHBORHOOD OF (PROBABLY) 2-

STORY DUPLEX HOMES SITUATED ALONG

MODERN, CURVINE STREETS. NO REMNANT

FEATURES OF THE FORMER MGP PLANT



NOTE: Objects marked in heavy BLACK over the ghost image, present for this year.

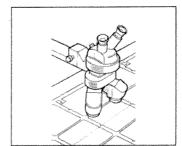
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HUNTSVILLE MGP, AL FEB. 6, 1971 cont.

REMAIN VISIBLE, ALTHOUGH ITS
EXACT FORMER LOCATION IS CLEARLY
VISIBLE FROM FEATURES ACROSS
THE GULLY AND RETRACKS TO
THE NW.

### Environmental Image Group

Glen C. Gustafson, PhD. 42 Banning Drive, PO Box 422 Avalon, CA 90704 Tel: (310) 612 - 3505 Blue-2002@GMX.NET



### LETTER OF TRANSMITTAL

TO:

Dennis Unites

**GEI Consultants** 

DATE:

September 15, 2011

6:30 PM Pacific Time

SUBJECT: Aerial Image Analysis Reports for 1942, 1950 & 1954

Dennis:

The additional aerial imagery analysis report requested by Scott Laseter, of KGL Attorneys, follows. This covers the National Archives aerial film from March 23, 1942, February 27, 1950, and February 6, 1954.

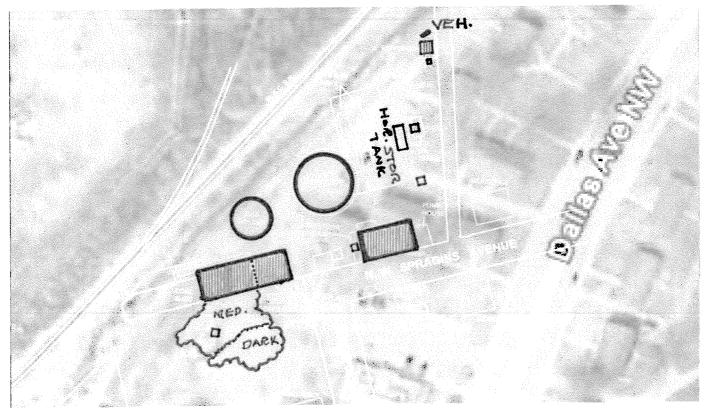
The "Uniform Image Analysis Report" which follows, has been compiled from stereo aerial films viewed over a light table through a standard Zoom Stereoscope. In its standard form, this equipment permits viewing of aerial films with stereo vision and zoom capabilities up to 30X. The positions of objects on the sketchmaps are only visual approximations, regarding size and location.

In a few cases, the dimensions of ground objects are given. These are not estimations, but rather, approximate calculations based on standard "photo mensuration" techniques. If needed, the science of

Case 2:10-cv-01840-IPJ Document 113-4 Filed 09/30/11 Page 18 of 27 "photogrammetry" could be used to more correctly dimension ground objects, although this is more time-consuming.

It is my understanding that I have now completed the basic task to the best of my ability in the time provided. In cases like this it is also common to have follow-up, specific questions of the imagery; if this is useful, please let me know. The materials and equipment will remain handy here for a few weeks; I should be able to respond quickly to any discussion items from the imagery.

# Uniform Image Analysis Report Site Name: HUNTSVILLE MGP AL IMAGE QUALITY: FAIR/POOR, But STERED TRIPLET. Date of Photography: MARCH 23, 1942 Photo Source: NATIONAL ARCHIVES Nominal Scale: \_\_\_\_\_ Film Type: PAN Reference No.: HM-1C-67, 68, 69 Comments: SITE CONTAINS! - LARGE GASOMETER W/ LIGHT-TOVED ROOF. - SMALLER GASOMETER WY MOTTLED ROOF. 5 - PURIFYING HOUSE, BUT NO ADJOINING SHEDS. - VERY DIRTY/SMUDGY RETORT BUILDING.



- PROBABLE HORIZONTAL STORAGE TANK

NOTE: Objects marked in heavy BLACK over the ghost image, present for this year.

HUNTSVILLE MGP, AL 9/14/11
P.Z
MARCH 23, 1942 cont.

LOCATED ALONG EAST SIDE OF

SITE ABOUT HALF WAY BETWEEN

THE PURIFYING HOUSE & RESIDENCE,

- A BROAD, BUT LOW, PROBABLE

COAL PILE IMMEDIATELY SOUTH

OF THE RETORT BUILDING

- AN ADJOINING POSSIBLE COAL
  PILE, SOMEWHAT DARKER AND
  LOWER, JUST TO THE SOUTH
  (I.E., DEEPER INTO THE "COAL
  YARD" AWAY FROM THE RETORT
  BUILDING).
- ONE LIGHT-TONED PROB. VEHICLE
  PARKED AT THE NORTH EDGE OF
  THE "RESIDENCE".

NOTE! BEST STEPED VIEW W/ EXPO-

9/14/11

## Uniform Image Analysis Report

Site Name: HUNTSVILLE MGP, AL

Date of Photography: FEB. 27, 1950

Photo Source: NATIONAL ARCHIVES

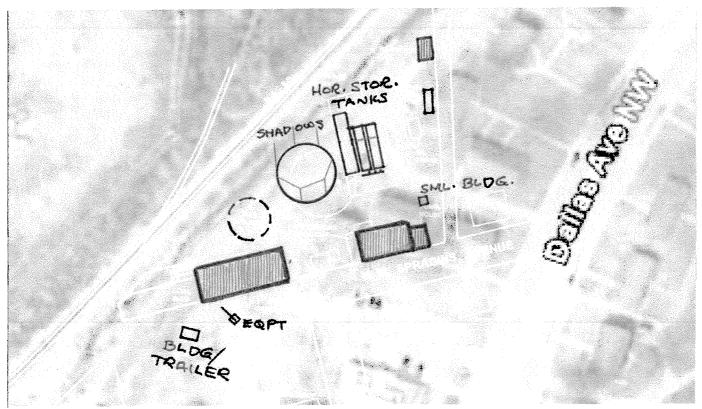
Nominal Scale: Film Type: PAN

Reference No.:

Comments: - LARGER GASOMETER IS MOSTLY

GONE, BUT LOWER PART OF THE STEELSUPER-STRUCTURE (ESTIMATED 30-FT HIGH) CLEARLY REMAINS; THE FLOOR OF THE FORMER TANK APPEARS TO BE SLIGHTLY LIGHT-TONED DIRT.

VERY SLIGHT DISTURBANCES TO FLOOR.



NOTE: Objects marked in heavy BLACK over the ghost image, present for this year.

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HUNTSVILLE MGP, AL
FEB. 27, 1950 COMMENTS cost.

THE FORMER TANK IS ON A SLIGHTLY ELEVATED PIECE OF GROWND, WITH THE REST OF THE PLANT SLIGHTLY LOWER,

- BEEN MOSTLY REMOVED, BUT THE RING AROUND THE BASE IS STILL CLEARLY VISIBLE, THE FLOOR OF THIS FORMER TANK APPEARS TO BE DIRT, SLIGHTLY DARKER THAN THE SURROUNDING SOIL, ABOUT GRAD. LEVEL.
- THE PURIFYING HOUSE IS PRESENT AND APPEARS TO HAVE A VERY CLEAN-LOOKING ROOF.
- THE ATTACHED PUMP HOUSE (TO THE EAST) APPEARS AS BEFORE.
- THEEE LIGHT-TONED (SILVER OR WHITE?) HORIZONTAL STOR, TANKS

  ARE CLEARLY VISIBLE JUST EAST
  OF THE LARGE GASOMETER. THIS

  CONSISTS OF ONE VERY LONG ONE

  AND TWO SLIGHTLY SHORTER ONES

  LYING PARALLER AND TO THE EAST,

  THE RETORT BLDG/GENERATOR

  ROOM/WATER GAS PLANT BLDG,

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FEB. 27, 1950 COMMENTS CONT.

A PPEARS COMPLETE & INTACT,

- NO VEHICLES ARE DISCERABLE,
- THE SITE DOES NOT GIVE MUCH EVIDENCE OF BEING ACTIVE,

9/14/11

# Uniform Image Analysis Report

SITE Name: HUNTSVILLE MGP, AL

Date of Photography: FEB. 6, 1954

Photo Source: NATIONAL ARCHIVES

Nominal Scale: Film Type: PAN

Reference No.: HM - 1N - 14 & 15

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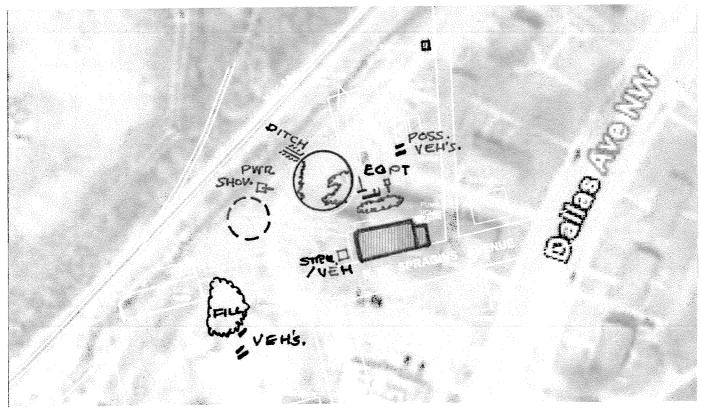
Comments: DISMANTLING OF THE PLANT SINCE

THE FEB. 1950 AIRPHOTOS HAS PRODUCED QUITE NOTICEABLE PROGRESS:

-THE SMALLER GASOMETER IS COMPLETELY

GONE, BUT A CIRCULAR TEENCH/GROUND

SCAR IS STILL VISIBLE. cont.



NOTE: Objects marked in heavy BLACK over the ghost image, present for this year.

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HUNTSVILLE MGP, AL FEB. 6, 1954 COMMENTS cont.

- THE LARGER GASOMETER HAS ALSO BEEN REMOVED, ALTHOUGH THE CIRCULAR FOUNDATION WALL REMAINS, PROJECTING A FEW FEET ABOUE THE TERRAIN, THE DEPRESSED INTERIOR OF THE FORMER GASOMETER APPEARS TO BE MOSTLY WATER-FILLED. ALTHOUGH THERE APPEARS TO BE SOME PROBABLE FILL MATERIAL ALONG THE SOUTHEAST RIM NEAR THE PURIFYING HOUSE, ALSO, A DITCH HAS BEEN CUT FROM THE GASOM-ETER RIM WESTWARD INTO THE CREEK, PERHAPS TO ALLOW DRAIN-AGE OF THE PONDED WATER IN THE FORMER TANK DEPRESSION. - A PROBABLE EXCAVATION STEAM SHOVEL CAN BE SEEN BETWEEN THE TWO FORMER GASOMETERS, - THE ENTIRE RETORT BUILDING
- THE ENTIRE RETORT BUILDING
  IS GONE AND THE TERRAIN HAS
  BEEN PARTIALLY GRADED,
- THE NORTH EDGE OF THE FORMER

P. 3

HUNTSVILLE MGP, AL
FEB. 6, 1954 COMMENTS CONT.

TRUCK LOADS OF LIGHT-TONED FILL MATERIAL; A TRUCK/CONS-TRUCTION VEHICLE CAN BE SEEN MOUING AROUND.

- TANKS FROM THE FEB. 1950 AERIAL
  FILM ARE GONE, ALTHOUGH SOME
  REMNANT PARTS OF THE TANKS
  MAY BE STORED JUST SOUTH
  OF THEIR FORMER LOCATION
  (i.e., NEARER TO THE PURIFIER
  BUILDING YARD).
- THE PURIFIER BUILDING AND PUMPHOUSE REMAIN UNCHANGED.
- THE "RESIDENCE" IN THE EXTREME NORTH CORNER OF THE SITE ALSO REMAINS UNCHANGED.
- BUT NOT WELL, DUE TO MAGE QUALITY.

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  HUNTSVILLE MGP AL
  FEB. 6, 1954 COMMENTS CON.
- MATERIAL IS VISIBLE JUST ACROSS
  THE YARD FROM THE PURIFYING
  BUILDING (I.E., TO THE NORTH).
- A SMALL STRUCTURE OR VEHICLE IS VISIBLE ON THE PANEMENT JUST EAST OF THE PURIFYING HOUSE.
- THE BASE OF THE FORMER SUPPORT

  CRADLE FOR THE 3 LARGE HORIZONTAL

  STORAGE TANKS IS STILL VISIBLE

  AT THE NORTH END OF THE FORMER

  TANKS.
- IT APPEARS THAT CONSIDERABLE GRADING HAS BEEN DONE ON THE HIGHER GROUND SURROUNDING THE TWO FORMER GASOMETERS.